VIRGINIA DIVISION OF MINERAL RESOURCES

CATALOG OF PUBLICATIONS AND MAPS





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VIRGINIA DEPARTMENT OF MINES, MINERALS AND ENERGY DIVISION OF MINERAL RESOURCES

General Information

The Division of Mineral Resources provides geologic, energy, and mineral resource information to a wide variety of industrial, governmental, academic, and residential customers. Division personnel are engaged in basic and applied research projects in the major regions of the State, from the Coastal Plain, across the Piedmont, Blue Ridge, and Valley and Ridge to the Appalachian Plateaus in southwestern Virginia. These projects range from broad, regional mapping and stratigraphic compilations to detailed site-specific studies.

The geologic, mineral resource, and geophysical data generated by the Division are used for long-term resource planning, land-use planning, exploration and development of energy and mineral resources, and baseline earth-science data for potential natural and man-made hazards. In addition, the Division administers and monitors the State topographic map program.

Earthquake Information

In cooperation with the Virginia Tech Seismological Observatory, a new station was installed adjacent to our building. Earthquake information for Charlottesville and other nearby locations is available from their web site: http://vtso.geol.vt.edu/outreach/vtso/heli/GIF/. Additional information may be obtained from the USGS National Earthquake Information Center in Colorado: telephone (303) 273-8500.

Order Fulfillment, Return and Refund Policy

Effective Date: September 28, 2004 Last Update: December 1, 2004

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OPEN-FILE REPORTS

| 82-1 Culpeper basin Vibroseis survey, by Virginia Polytech. Inst. and State University Regional Geophysical Laboratory. Three | |
|--|---------------------|
| topographic index maps; ozalid copies of shot points and geologic units and eight uninterpreted seismic profiles at | |
| 1 inch = 1,000 feet and 1 inch = 2,000 feet, 1982. | \$22.00 |
| 82-3 Blacksburg and Radford area Vibroseis surveys, by Virginia Polytech. Inst. and State University Regional Geophysical Laboratory. | |
| Two lines, seven ozalid copies of topographic index maps, shot points and four seismic profiles at 1 inch = 1,000 feet and | |
| 1 inch = 2,000 feet, 1982. | \$15.50 |
| 85-1 Summary reports for gas wells drilled in Buchanan County, Virginia (Scout tickets), by J.J. Arnold, 251 p., 1985. | Out of Print |
| 86-1 Assessment of economic heavy minerals of the Virginia Inner Continental Shelf, by C.R. Berquist, Jr. and C.H. Hobbs, 17 p., 1986. | \$4.00 |
| 88-3 Mineral and energy resources of southwest Virginia, 41 p.,1980. | Out of Print |
| 88-4 Study of economic heavy minerals of the Virginia Inner Continental Shelf, by C.R. Berquist, Jr. and C.H. Hobbs, II, 149 p., 1988. | Out of Print |
| 89-1 Evaluation of sediment dynamics and the mobility of heavy minerals on the Virginia Inner Continental Shelf, by J.D. Boon and | |
| C.R. Berquist, Jr., 29 p., 1989. | \$4.00 |
| 91-1 Preliminary geologic section across the buried part of the Taylorsville basin, Essex and Caroline counties, Virginia, by R.C. Milion | i |
| and others, 31 p., 6 figures, 4 tables, 9 plates. | \$11.75 |
| 92-2 Oil and gas well analyses of hydrocarbon potential of Buchanan, Dickenson, and Wise counties, Virginia, by F.H. Jacobeen, Jr., | |
| 17 pages, 3 figures, 5 tables, 26 plates, 1992. | \$11.00 |
| 04-1 Geology of the Damascus and Laurel Bloomery quadrangles, Virginia , by W.W. Whitlock and J.R. Derby, color 1:24,000-scale map | |
| sheet with accompanying stratigraphic column, 2004. | \$15.00 |
| 04-2 Application of geostatistical methods in 3-D modeling of coal resources, Buchanan County, Virginia , by A.K. Gilmer, R.J. Kent | |
| and B.D. Knight, color poster available digitally as pdf file | \$5.00 |
| 04-3 Central Shenandoah Valley digital geologic compilation , by I.J. Duncan, E.V. Campbell, S.T. Williams, H.A. Hubbard, and J.M. Floyd, | |

BOOKS

(**Shipping charges apply, please see page ii for details)

| Minerals of Virginia - 1990, by R.V. Dietrich, 474 p., with illustrations, 1990. | \$ 12.75 |
|--|--------------|
| Minerals of Virginia, 1990 - an update, by R.V. Dietrich, 28 p., 4 figs., 1993. | \$4.00 |
| Geology and Virginia, by R.V. Dietrich, 213 p., 1990 (2nd printing). | \$13.75 |
| Stones: Their collection, identification, and uses, by R. V. Dietrich, 191 pages, 1989. | Out of Print |
| ** Roadside Geology of Virginia, by Keith Frye, Mountain Press Publishing Company, 278 p., 1986. | \$17.00 |
| **Guidebook to the Natural Bridge and Natural Bridge Caverns, by E.W. Spencer, 48 p., 1985. | \$4.00 |

EDUCATIONAL CD-ROMS

(**Shipping charges apply, please see page ii for details)

^{**}Geology of Virginia, CD-ROM 1, second edition, Introduction and geologic background, by P. S. Sethi, R. C. Whisonant, Karen K. Cecil, and Phyllis L. Newbill, 2001. \$6.00

^{**}Teacher's guide for geology of Virginia CD-ROM 1, second edition, by Karen K. Cecil, P. S. Sethi R. C. Whisonant, and Phyllis L. Newbill, 132 pages, looseleaf, 2001 \$13.00

Geology of Virginia, CD-ROM 2, Coastal Plain, by P. S. Sethi, R. C. Whisonant, Karen K. Cecil, and Phyllis L. Newbill, 2000.

Out of Print
Teacher's guide for geology of Virginia CD-ROM 2, by Karen K.Cecil, R. C. Whisonant, and P. S. Sethi, and Phyllis L. Newbill 1, 49 pages, looseleaf, 2000.

Out of Print
Out of Print

**Geology of Virginia, CD-ROM 3 Piedmont and Blue Ridge, by P. S. Sethi, R. C. Whisonant, Karen K. Cecil, and Phyllis L. Newbill, 2000 \$6.00

**Teacher's guide for geology of Virginia CD-ROM 3, by Karen K.Cecil, R.C.Whisonant, and P.S.Sethi, and Phyllis L.Newbill, 187 pages, looseleaf, 2000.
\$13.00

Geology of Virginia, CD-ROM 4 Valley and Ridge and Appalachian Plateaus, by P. S. Sethi, R. C. Whisonant, Karen K. Cecil, Phyllis L. Newbill, and Lora L. Combs, 2001.

**Teacher's guide for geology of Virginia CD-ROM 4, by Karen K.Cecil, R.C.Whisonant, and P.S.Sethi, Phyllis L.Newbill, and Lora L.Combs, 176 pages, looseleaf, 2001 \$13.00.

Images of Virginia's geology, CD-ROM, by Phyllis L. Newbill, R. C. Whisonant, and P. S. Sethi, 2003.

\$6.00t

ROCK AND MINERAL SET

(**Shipping charges apply, please see page ii for details)

**Boxed set of twenty rocks and minerals from Virginia.

\$9.00

U.S. GEOLOGICAL SURVEY REPORTS AND MAPS

(**Shipping charges apply, please see page ii for details)

CHARTS

**OC-123. Interpretive seismic profile along Interstate I-64 from the Valley and Ridge to the Coastal Plain in central Virginia, by L.D. Harris, W. deWitt, Jr., and K.C. Bayer, 1982. \$2.50

BULLETINS

660-J. Possibilities for manganese ore on certain undeveloped tracts in Shenandoah Valley, Virginia, by D.F. Hewett and others, 33 p., 1918.

Out of Print

**1027-L Oil and gas wells drilled in southwestern Virginia before 1950, by J.W. Huddle and others, 72 p., 1956.

\$2.00

1312-F. Rutile and ilmenite placer deposits Roseland district, Nelson and Amherst counties, Virginia: Economic geology, 19 p., 1970. Out of Print

GEOLOGIC QUADRANGLES (1:24,000 scale)

Out of Print

GQ-1670 Vienna, 1989

MISCELLANEOUS INVESTIGATIONS

Map I -2033 **Geologic Map and Generalized Cross Sections of the Coastal Plain and Adjacent parts of the Piedmont Virginia, by R.B. Mixon, C.R. Berquist, Jr., W.L. Newell, and G.H. Johnson, 2 map sheets, color 1:250,000 geologic map and cross section, 1989 \$7.75

GEOPHYSICAL MAPS

GRAVITY

State map of Virginia, Gravity map of the simple Bouguer anomaly (1977), by S.S. Johnson. Gravity values which are useful for interpreting rock type and structure, are indicated by 5 milligal contours. Color edition; scale 1:500,000 or 1 inch = approximately 8 miles; size 30 x 60 inches.

\$6.00

AEROMAGNETIC

(**Shipping charges apply, please see page ii for details)

STATE MAP (SCALE 1:1,000,000 AND 1:500,000)

**Aeromagnetic map of Virginia (1977), by I. Zietz and others. Magnetic values which are useful for interpreting rock type and structure, are indicated by 100 gamma interval contours. Color edition; scale 1 inch = approximately 16 miles; size 10 x 32 inches. Prepared by U.S. Geological Survey in cooperation with Division of Mineral Resources. The 1:500,000 map is not in color.

REGIONAL MAPS (SCALE 1:250.000)

See **Figure 1, Composite Aeromagnetic Maps for locations. These maps were made from 1:62,500 aeromagnetic maps listed under "quadrangle maps" below.

\$5.00 Each

SOUTHWEST VIRGINIA MAP (1962)

**Aeromagnetic data for the area marked as H in Figure 1 are available in another form. The data packet consists of ozalid copies of : a. total magnetic intensity maps (5 sheets, scale 1:100,000); b. geophysical interpretation maps (5 sheets, scale 1:100,000); c. composite maps of items "a" and "b" (2 sheets, scale 1:250,000); and d. a 36-page booklet of data interpretation. \$41.00

QUADRANGLE MAPS (15-MINUTE, SCALE 1:62,500)

**Aeromagnetic maps are available for the quadrangles listed below. Where less than full quadrangle coverage is available, compass directions indicate quadrants covered.

1. Back Bay, 2. Moyock, 3. Lake Drummond, 4. Sulfolk, 5. Holland, 6. Boykins, 7. Arringdale, 8. Emporia, 9. White Plains, 10. South Hill, 11. Boydton, 12. Clarksville, 16. Draper, 17. Martinsville NE, NW, SE, 33. Virginia Beach, 34. Cape Henry, 35. Newport News, 36. Smithfield, 37. Ivor, 38. Homeville, 39. Jarratt, 40. McKenney, 41. Lawrenceville, 42. Kenbridge, 43. Chase City, 44. Clover, 45. Halifax, 46. Riceville, 47. Chatham, 48. Callands, 49. Rocky Mount, 50. Endicott NE, NW, SE, 52. Macks Mtn. NE, NW, 53. Max Meadows NE, NW, 63. Cape Charles, 64. Elliots Creek, 65. Hampton, 66. Yorktown, 67. Surry, 68. Disputant, 69. Petersburg, 70. Dinwiddie, 71. Wellville, 72. Crewe, 73. Keysville, 74. Charlotte Court House, 75. Brookneal, 76. Gladys, 77. Altavista, 78. Moneta, 79. Boones Mill, 80. Elliston, 81. Blacksburg, 82. Radford, 83. Pulaski, 84. Bland NE, NW, SE, 92. Broadwater, 93. Eastville, 94. Westcott, 95. Mathews, 96. Williamsburg, 97. Toano, 98. Charles City, 99. Bermuda Hundred, 100. Winterpock, 101. Shinquarter, 102. Jetersville, 103. Farmville, 104. Pamplin City, 105. Appomattox, 106. Lynchburg, 107. Goode, 108. Peaks of Otter, 109. Roanoke, 110. Salem, 111. Waiteville, 112. Pearisburg, 113. Narrows, 114. Bluefield, 120. Accomac, 121. Onacock, 122. Kilmarnock, 123. Urbanna, 124. New Kent, 125. King William, 126. Richmond, 127. Midlothian, 128. Powhatan, 129. Lakeside Village, 130. Dillwyn, 131. Buckingham, 132. Shipman, 133. Amherst, 134. Buena Vista, 135. Natural Bridge, 136. Eagle Rock, 137. New Castle, 138. Ronceverte, 141. Chincoteague Island, 142. Hallwood, 143. Crisfield, 144. Ewell, 145. Heathsville SW, SE, 146. Morattico SW, SE, 147. Tappahannock SW, SE, 148. Aylett SW, SE, 150. Beaverdam SW, SE, 151. Fredericks Hall SW, SE, 152. Columbia, 153. Scottsville, 154. Covesville, 155. Lovingston, 156. Vesuvius, 157. Lexington, 158.

AERORADIOMETRIC

(**Shipping charges apply, please see page ii for details)

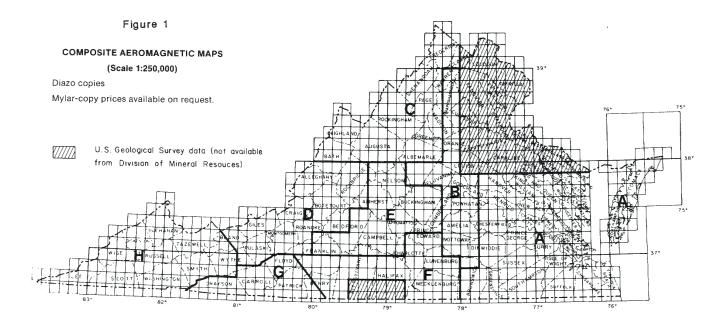
REGIONAL MAPS (SCALE 1:250,000)

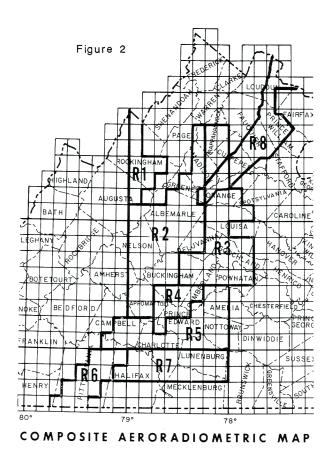
**See Figure 2, Composite Aeroradiometric Maps, for locations. These maps were made from the 1:62,500 aeroradiometric maps listed under "Quadrangle maps" below. \$5.00 Each

QUADRANGLE MAPS (15-MINUTE, SCALE 1:62,500)

**Aeroradiometric maps are available for the quadrangles listed below. Where less than full quadrangle coverage is available, compass directions indicate quadrants covered.

\$5.00 Each
15. Danville NE, NW, SW, 16. Draper NE, SW, SE, 42. Kenbridge, 43. Chase City, 44. Clover, 45. Halifax, 46. Riceville, 47. Chatham NE, SW, SE, 72. Crewe, 73. Keysville, 74. Charlotte Court House, 75. Brookneal, 76. Gladys NE, SW, SE, 102. Jetersville, 103. Farmville, 104. Pamplin City, 105. Appomattox, 128. Powhatan, 129. Lakeside Village, 130. Dillwyn, 131. Buckingham, 132. Shipman, 151. Fredericks Hall SW, SE, 152. Columbia, 153. Scottsville, 154. Covesville, 155. Lovingston, 171. Glenora NW, SW, SE, 172. Gordonsville, 173. Charlottesville, 174. University NE, SW, SE, 175. Waynesboro NW, SW, SE, 184. Culpeper NE, NW, SW, 185. Rapidan, 186. Madison NE, SW, SE, 187. Elkton NW, 188. Harrisonburg, 195. Catlett, 196. Warrenton NE, SW, SE, 197. Sperryville, 198. Stony Man NE, SE, 200. Broadway NW, SW, 206. Middleburg, 211. Orkney Springs SW, 215. Leesburg NE, SE.





TOPOGRAPHIC MAPS AND PRODUCTS

(**Shipping charges apply, please see page ii for details)

BASE MAPS

| **Middle Atlantic States, (1972). Shows political boundaries, major rivers and roads, federal recreational areas, major cities and towns of Pa., N. J., Del., Md., W. Va., Va., and Ohio, size 19 x 28 inches. | \$7.00 |
|---|-----------------------|
| **State of Virginia, (1973). Location of county boundaries, railroads, cities, towns, and streams, scale 1:1,000,000 or 1 inch = approximately 16 miles, size 16 x 32 inches. | \$7.00 |
| **State of Virginia, (1973). Location of county and state boundaries, county seats, railroads, cities, and towns, all represented by black lines; rive many larger streams, and water features, all represented by blue lines, scale 1:500,000 or 1 inch = approximately 8 miles, size 30 x 64 inches. | ers, \$7.00 |
| **State of Virginia, (1973). Multicolor topographic edition depicting landforms with contours at 200-foot intervals; state and federal parks, forests, and some wildlife refuges; roads and railroads; urbanized areas; county and city boundaries and names; rivers and lakes; scale 1:500,000 or 1 inch = approximately 8 miles; size 30 x 64 inches. | \$7.00 |
| **State of Virginia, shaded relief, (1973). Location of county boundaries and highways with contours. | \$7.00 |
| INTERNATIONAL SERIES | |
| **Multicolored topographic maps in this series are prepared at a scale of 1:1,000,000 or 1 inch = approximately 16 miles, size 25 x 26 inches. Contour intervals (metric) are color enhanced. Virginia and adjacent states are depicted on 2 maps; west of 78°W longitude, Blue Ridge sheet (out of stock); east of 78°W longitude, Chesapeake Bay sheet. | \$7.00 |

SHENANDOAH NATIONAL PARK

***Multicolored topographic maps (1969). **Printed in three parts: the Northern, Central, and Southern sections**. Green overprint; scale 1:62,500 or 1 inch = approximately 1 mile; contour interval 200 feet; size, each section 38 x 21 inches. \$10.00 Each

TOPOGRAPHIC BATHYMETRIC MAPS

**Depicts beach and Atlantic Ocean bottom topography. Federal lease block grid indicated on ocean portion.

| Currituck Sound, VaN.C. (Virginia Beach to Kitty Hawk), scale 1:250,000. | \$7.00 |
|--|--------|
| Chincoteague, Va., scale 1:250,000. | \$7.00 |
| Cheriton, Va., scale 1:100,000. | \$7.00 |

COUNTY TOPOGRAPHIC MAPS

**County topographic maps at a scale of 1:50,000 are available for the following counties:

Albemarle/City of Charlottesville, Amherst, Bedford, Bland, Buchanan, Campbell/City of Lynchburg, Charles City, Chesterfield, Culpeper, Fairfax,
Hanover, Henrico, Henry, James City, Lee, Loudoun, New Kent, Orange, Prince William, Roanoke, Rockbridge, Smyth, Spotsylvania/City of Fredericksburg, Stafford, Tazewell, Warren, Washington/City of Bristol, Wythe.

\$7.00 Each

7.5-MINUTE QUADRANGLES

**The Division stocks 7.5-minute topographic maps with woodland coverage for all of Virginia. Scale 1:24,000 or 1 inch = 2000 feet; size 27 x 22 inches. Some of the maps have been photorevised to indicate, by means of purple color, revisions of and additions to cultural data. There is no discount for a "bulk order." An index to topographic maps of Virginia is free from the Division upon request.

\$6.00 Each

ORTHOPHOTOQUADS

**Rectified aerial photographic depictions of standard 7.5-minute quadrangles are available for some areas. Scaled measurements, differentiation of coniferous and deciduous trees, and interpretations of land use can be determined from orthophotoquads. Scale 1:24,000 or 1 inch = 2000 feet, size 27 x 22 inches. The orthophotoquads do not show contours. A listing of orthophotoquads is available. Ozalid copies only, allow 24 hours for reproduction.

AERIAL PHOTOGRAPHS

Contact the U.S. Geological Survey, Earth Resources Observation Systems Data Center, Sioux Falls, SD 57198; telephone: 605-594-6151.

ATLAS

**Virginia Atlas and Gazetteer, 63 topographic maps, scale 1:150,000; includes information on historic sites, museums, campgrounds, canoe and boat trips, parks, and scenic drives. \$20.00

RAISED RELIEF MAPS

**Topographic raised relief maps with boundaries, cities and towns, roads, railroads, and contours; woodland shown in green tint, scale 1:250,000.
Charlottesville, Washington, Roanoke, Winston Salem, Bluefield, Greensboro, Jenkins, Johnson City, and Baltimore. \$20.00

**Shenandoah National Park, scale 1:250,000.

\$10.00

***U.S. raised relief map. Full color with physical features and political boundaries. All states including Hawaii and Alaska; major cities shown.
(1" = 100 miles). 34.5" x 21.5"
\$25.00

3-D TOPOGRAPHIC MAPS

Charlottesville 30 x 60 minute quadrangle, scale: 1:100,000

DWG coverage

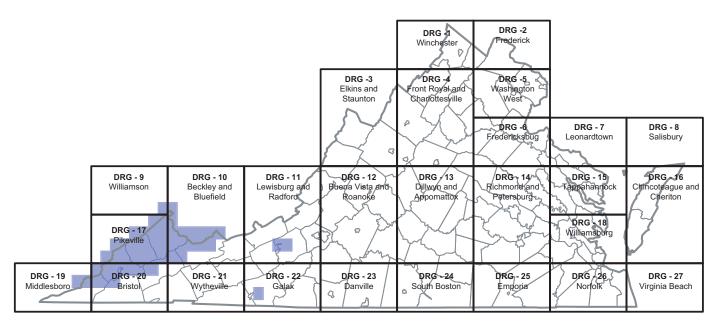
\$7.00

DIGITAL TOPOGRAPHIC DATA

Digital Raster Graphics (DRG) of 1:24,000; 1:100,000, and 1:250,000 scale topographic maps; refer to the diagram below for quadrangle designation. Viewing software included on CD is for Windows 3.x. For Windows 9x, Windows NT 4.0, Windows 2000, etc..., the USGS has a software viewer available for download from their website- http://mcmcweb.er.usgs.gov/drg. Delivery: allow 5 working days from receipt of order for shipment of a single disc; allow 15 days from receipt of order for shipment of statewide coverage.

Order by number and name; Price: \$35.00 for each CD-ROM

| DRG-1 Winchester | DRG-10 Beckley and Bluefield | DRG-19 Middlesboro |
|---------------------------------------|----------------------------------|---------------------|
| DRG-2 Frederick | DRG-11 Lewisburg and Radford | DRG-20 Bristol |
| DRG-3 Elkins and Staunton | DRG-12 Buena Vista and Roanoke | DRG-21 Wytheville |
| DRG-4 Front Royal and Charlottesville | DRG-13 Dillwyn and Appomattox | DRG-22 Galax |
| DRG-5 Washington West | DRG-14 Richmond and Petersburg | DRG-23 Danville |
| DRG-6 Fredericksburg | DRG-15 Tappahannock | DRG-24 South Boston |
| DRG-7 Leonardtown | DRG-16 Chincoteague and Cheriton | DRG-25 Emporia |



DRG-8 Salisbury DRG-17 Pikeville DRG-26 Norfolk DRG-9 Williamson DRG-18 Williamsburg DRG-27 Virginia Beach

Digital Vector data of 47 1:24,000 scale topographic maps for the southwest Virginia coalfield and three additional 1:24,000 maps (Blacksburg, Radford North, and Woodlawn) available on one CD-ROM. File format: AutoCAD release 12 DWG. For information on specific data layers please contact the Environmental Engineer Consultant at the Division of Mined Land Reclamation (Telephone 276-523-8166). **Price: \$35.00**

Maps-on-demand

Maps-on-demand are hardcopy of compilation maps.

Coalbed maps have the theoretical extent of the coalbed (including outcrop patterns from the most current published geologic maps), major faults and mined out areas. Mined out areas are approximate and the known mine coverage is incomplete. Currently, the mined out areas are being updated and revised as part of an on-going project. Please note the date of the compilation map.

Geologic compilations were assembled from current published and unpublished geologic maps. These maps are unedited.

| MOD-1 | Mined portion and extent of Pocahontas No. 3 coalbed in Southwest Virginia, by D. B. Spears, J. E. Nolde, and R. S. Sites | s, 1997, |
|--------|--|-----------------------|
| | scale 1:100,000. | \$18.00 |
| MOD-2 | Geologic map of the coal-bearing portion of the Pikeville and Williamson 30 x 60 minute quadrangles, Virginia ; geologic compilation by A. R. Taylor, scale 1:100,000, 1998, (unedited). | \$13.00 |
| MOD-3 | Geologic map of the coal-bearing portion of the Bluefield and Beckley 30 x 60 minute quadrangles, Virginia ; geologic compilate by A. R.Taylor, scale 1:100,000, 1998, (unedited). | ion \$15.00 |
| MOD-4 | Geologic map of the coal-bearing portion of the Middlesboro 30 x 60 minute quadrangle, Virginia ; geologic compilation by A. R. Taylor, scale 1:100,000, 1998, (unedited). | \$6.00 |
| MOD-5 | Geologic map of the coal-bearing portion of the Bristol 30 x 60 minute quadrangle, Virginia ; geologic compilation by A. R. Taylor, scale 1:100,000, 1998, (unedited). | \$10.00 |
| MOD-6 | Mined portion and extent of the Phillips (Fireclay/Hazard #4) coalbed in Southwest Virginia, by R. S. Sites, D. B. Spears, and R. S. Hope, scale 1:50,000, 1998. | \$18.00 |
| MOD-7 | Mined portion and extent of the Imboden (Pond Creek/Lower Elkhorn) coalbed in Southwest Virginia, by R. S. Sites, D. B. Spears, and R. S. Hope, scale 1:100,000, 1998. | \$18.00 |
| MOD-8 | Natural gas field in the Virginia portion of the Appalachian basin, by J. E. Nolde and D. B. Spears, 1999, scale 1:100,000 Not av | /ailable |
| MOD-9 | Mined portion and extent of the Taggart (Darby/upper coal in Elkhorn #3 zone) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1999, scale 1:50,000 | \$18.00 |
| MOD-10 | Mined portion and extent of the Taggart Marker (Kellioka/lower coal in Upper Elkhorn #3 zone) coalbed in Southwest Virginia by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1999, scale 1:50,000 | , \$18.00 |
| MOD-11 | Mined portion and extent of the Wilson (Collier/ Upper Elkhorn #2/ a coal in Harlen/Alma zone) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1999, scale 1:100,000 | \$18.00 |
| MOD-12 | Mined portion and extent of the Kelly (upper coal in Lower Elkhorn zone (Pond Creek Rider?)) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1999, scale 1:100,000 | \$18.00 |
| MOD-13 | Mined portion and extent of the Lower Horsepen coalbedin Southwest Virginia , by Roy S. Sites, Rebecca S. Hope, and Jack E. Nolde, 1999 (revised June 2002), scale 1:150,000. | \$18.00 |
| MOD-14 | Mined portion and extent of the Morris (No. 11 / Hazard No. 5A) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1998, scale 1:50,000 | \$18.00 |
| MOD-15 | Mined portion and extent of the High Splint (No. 12) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1998, scale 1:50,000 | \$18.00 |
| MOD-16 | Mined portion and extent of the Pardee (No. 10 / upper coal of the Hamlin coal zone) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1998, scale 1:50,000 | \$18.00 |
| MOD-17 | Mined portion and extent of the Low Splint (No. 6 / a coal in Creech & Amburgy coal zone) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and David B. Spears, 1998, scale 1:150,000 | \$18.00 |
| MOD-18 | Mined portion and extent of the War Creek (Beckley) coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, and Jack E. Nolde, 1999 (revised June 2002), scale 1:150,000 | \$18.00 |
| MOD-19 | Mined portion and extent of the Fire Creek coalbed in Southwest Virginia , by Roy S. Sites, Rebecca S. Hope, and Jack E. Nolde, 1999 (revised June 2002), scale 1:150,000 | \$18.00 |
| MOD-20 | Mined portion and extent of the Addington (uppermost Clintwood Marker?) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-21 | Mined portion and extent of the Lyons (Eagle of Virginia) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-22 | Mined portion and extent of the Dorchester (Glamorgan) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-23 | Mined portion and extent of the Norton coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-24 | Mined portion and extent of the Hagy (Edwards) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-25 | Mined portion and extent of the Imboden Marker coalbed in Southwest Virginia , by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |

| MOD-26 Mined portion and extent of the Clintwood coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
|---|-----------------------|
| MOD-27 Mined portion and extent of the Blair (Lower Clintwood) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-28 Mined portion and extent of the Wax coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-29 Mined portion and extent of the 34-inch (Low Splint E & Cedar Grove) coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-30 Mined portion and extent of the Pocahontas No. 6 coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000 (revised June 2002), scale 1:150,000 | \$18.00 |
| MOD-31 Mined portion and extent of the Upper Horsepen coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, sca 1:150,000 | ale \$18.00 |
| MOD-32 Mined portion and extent of the Middle Horsepen coalbed in Southwest Virginia, by Roy S. Sites, Rebecca S. Hope, Jack E. Noldand David B. Spears, 2000, scale 1:150,000 | e, \$18.00 |
| MOD-33 Mined portion and extent of the Jawbone coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:150,000 | \$18.00 |
| MOD-34 Mined portion and extent of the Splashdam coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:100,000 | \$18.00 |
| MOD-35 Mined portion and extent of the Tiller coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2000, scale 1:150,000 | \$18.00 |
| MOD-36 Mined portion and extent of the Upper Banner coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2001, scale 1:100,000 | \$18.00 |
| MOD-37 Mined portion and extent of the Lower Banner coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2001 (revised March 2002), scale 1:100,000 | \$18.00 |
| MOD-38 Mined portion and extent of the Kennedy coalbed in Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2001, scale 1:100,000 | \$18.00 |
| MOD-39 Mined portion and extent of the Raven (Jewell & Red Ash) coalbed of Southwst Virginia, by Roy S. Sites and Rebecca S. Hope, 2001, scale 1:100,000 | \$18.00 |
| MOD-40 Mined portion and extent of the Aily coalbed of Southwest Virginia, by Roy S. Sites and Rebecca S. Hope, 2001, scale 1:100,000 | \$18.00 |
| MOD-41 Mined portion and extent of the Big Fork (Puncheon Camp) coalbed of Southwest Virginia, by Roy S. Sites and Rebecca S. Hop 2001, scale 1:100,000 | \$18.00 |
| MOD-42 Mined portion and extent of the Upper Seaboard (Sewell??) coalbed of Southwest Virginia, by Roy S. Sites and Rebecca S. Hop 2001, scale 1:100,000 | se, \$18.00 |
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| abandoned mines, Piedmont of Virgin | ia 20 | 2 | 1974 |
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COMMONWEALTH OF VIRGINIA, DEPARTMENT OF MINES, MINERALS AND ENERGY VIRGINIA DIVISION OF MINERAL RESOURCES

PUBLICATION ORDER FORM

| Quantity |
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| |
| SUBTOTAL |
| 5% Sales Tax (VA Residents Only) |
| TOTAL |
| |

^{*}Tax Identification Number is required for organizations which are tax exempt or for refunds.

DMR-012: REV. 9/04